

CLAIMS

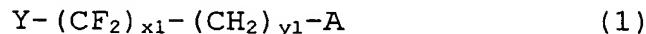
1. A method of purifying a treatment target substance comprising carrying out a removing treatment of a fluorine-containing surfactant by bringing said treatment target substance containing said fluorine-containing surfactant into contact with a substance [A], wherein said substance [A] is a gas under standard conditions (10^5 Pa, 0°C).

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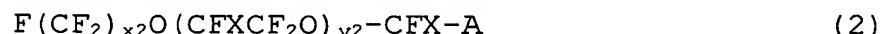
2. The method of purifying the treatment target substance according to Claim 1, wherein the fluorine-containing surfactant comprises a fluorine-containing compound containing not more than 38 carbon atoms per molecule.

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3. The method of purifying the treatment target substance according to Claim 2, wherein the fluorine-containing compound is an ether oxygen-free anionic compound represented by the general formula (1):



wherein Y represents H or F, x1 represents an integer of 4 to 13, y1 represents an integer of 0 to 3 and A represents $-SO_3M$ or $-COOM$ (in which M represents H, NH_4 , Li, Na or K), or an ether oxygen-containing anionic compound represented by the general formula (2):



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wherein x2 represents an integer of 1 to 5, y2 represents an integer of 0 to 10, X represents F or CF_3 and A represents $-SO_3M$ or $-COOM$ (in which M represents H, NH_4 , Li, Na or K).

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4. The method of purifying the treatment target substance according to Claim 1, 2 or 3,

wherein the substance [A] is carbon dioxide.

5. The method of purifying the treatment target substance according to Claim 4,

5 wherein the removing treatment of the fluorine-containing surfactant is carried out at a temperature not lower than 20°C and at a pressure of not lower than 4 MPa.

6. The method of purifying the treatment target substance according to Claim 4,

10 wherein the removing treatment of the fluorine-containing surfactant is carried out at a temperature not lower than the critical temperature of carbon dioxide and at a pressure not lower than the critical pressure of carbon 15 dioxide.

7. The method of purifying the treatment target substance according to Claim 1, 2, 3, 4, 5 or 6,

20 wherein the treatment target substance further contains water.

8. The method of purifying the treatment target substance according to Claim 7,

25 wherein the treatment target substance comprises (i) water and (ii) a nonwater component other than said water (i) containing the fluorine-containing surfactant, said nonwater component (ii) further contains a polymer or contains no polymer, said water (i) is in an amount of more than 0.1 part by 30 mass per 100 parts by mass of said nonwater component (ii).

9. The method of purifying the treatment target substance according to Claim 1, 2, 3, 4, 5, 6, 7 or 8,

35 wherein the treatment target substance is an aqueous dispersion comprising a polymer and water.

10. The method of purifying the treatment target substance according to Claim 1, 2, 3, 4, 5, 6, 7 or 8, wherein the treatment target substance is an aqueous 5 nondispersion containing a polymer and water or a wet powder containing a polymer and water.

11. The method of purifying the treatment target substance according to Claim 8, 9 or 10, 10 wherein the polymer is a fluoropolymer.

12. The method of purifying the treatment target substance according to Claim 11, wherein the fluoropolymer is a polytetrafluoroethylene 15 polymer.

13. The method of purifying the treatment target substance according to Claim 1, 2, 3, 4, 5 or 6, wherein the treatment target substance further contains 20 water, said treatment target substance substantially contains no polymer.

14. A method of producing an aggregate, 25 which comprises producing an aggregate comprising a polymer using the method of purifying the treatment target substance according to Claim 9, 10, 11 or 12.

15. A method of preparing a fluorine-containing- 30 surfactant-reduced water, which comprises preparing the fluorine-containing- surfactant-reduced water reduced in fluorine-containing surfactant content using the method of purifying the treatment target substance according to Claim 13.

16. A method of producing an aggregate for the production of the aggregate comprising a polymer, which comprises the step of carrying out a coagulation treatment of an aqueous dispersion by bringing said aqueous dispersion in which a particle comprising said polymer is dispersed into contact with an substance [A], said substance [A] being a gas under standard condition (10^5 Pa, 0°C).

10 17. The method of producing the aggregate according to Claim 16, wherein the coagulation treatment of the aqueous dispersion is carried out at a specific treatment temperature ($T^\circ\text{C}$) and at a specific treatment pressure (P Pa), the ratio (T/T_c) between said specific treatment temperature ($T^\circ\text{C}$) and the critical temperature ($T_c^\circ\text{C}$) of the substance [A] is not lower than 0.8, the ratio (P/Pc) between said specific treatment pressure (P Pa) and the critical pressure (Pc Pa) of said substance [A] is not lower than 0.8.

18. The method of producing the aggregate according to Claim 17, wherein the specific treatment temperature (T) is not lower than the critical temperature (T_c) of the substance [A], the specific treatment pressure (P) is not lower than the critical pressure (Pc) of said substance [A].

30 19. The method of producing the aggregate according to Claim 16, 17 or 18, wherein the polymer is a fluoropolymer.

20. The method of producing the aggregate according to Claim 19, wherein the fluoropolymer is a polytetrafluoroethylene

polymer.